

CAPT. GEO. M. McCLAIN, GLOUCESTER, MASS.

Interviewed by William Wakeham and Hugh M. Smith

November 16, 1893.

Aged 53. Lives at Rockport, Mass.

Master of vessel 33 years. Has been fishing since he was 10 years old. Master of schooner Marguerite Haskins.

Has not been south since the close season began. Before that went nearly 20 years steady. Leave here about 25th of April, and meet the fish abreast of Delaware. Hardly ever went farther south. Twenty odd years ago went south as far as Cape Henry. One day got 8 wash barrels just inside of the Light. Never went south before the purse seine came into use. Went south 3 or 4 years before with hook and line. Did not go so far south as with seines. Met fish when jigging hardly ever to the south of Delaware. Mostly off Cape May; along about the first of May. 1893.

Followed them up abreast of Sandy Hook, New York, and down Long Island. After got to seining them south, used to go further south; down as far as Hatteras. Never got any (himself) mackerel as far south as Hatteras, there. Never got any mackerel in the gulf stream. Never saw them there.

Sometimes they would take the hook early; other times they would not; just as it happened. As a general thing would not get very big fishing in the spring at first. Would be in heavy bodies some years when we first met them, some years in small bodies. When first going seining south, the first mackerel were all large. After we had been a spell were all small. In the early years used to get larger mackerel than we have of late years. First went south with the purse seine in 1871. Not much purse seining in the spring before that. Thinks the Dreadnaught, Capt. Henry Willard, was the first man to seine, about 1868.

When we first see the fish at the south, in the region of Cape Henry, they are going about parallel with the coast, about N. N.E. When they get abreast of New York they head more to the eastward. When he sees them there they are sometimes schooling and sometimes scattered, just as it happens. When he first sees them they are poor, and full of spawn.

Does not think there is much difference in the size of spring schools and those that come later. The size of the schools has been growing smaller of late years, very much so. The fish in the schools are mostly on the surface; previously were deeper bodies.

Has followed these spring schools as far north as Cape Breton. Followed them right along shore across Georges, and strike them on western part of Nova Scotia and Cape Sable. Sometimes would strike them down at Canso. They do not always strike on the western part of Nova Scotia and follow the coast right down,

but seem to strike all in one day, as though they came right in within 24 hours. Would strike Canso as quick as they would strike Cape Sable. Thinks some of the schools seen south in the spring stop on the Nova Scotia shore as they go along, but thinks there is another school that comes in from offshore out of the edge of the gulf stream. Some that strike further to the eastward than any that go in in the spring here, that strike the Cape Shore and go into the Gulf of St. Lawrence. Would expect to strike that later body at about the same date each year. They do not vary much.

The earliest he ever caught fish south was about the 22nd of April. They were about half way from the Breakwater to the Capes of Virginia; about latitude of Chincoteague. Never got any before.

Greatest distance ever saw mackerel straight off the coast was about 80 miles. But sometimes they get them southeast from

New York, 120 to 130 miles off, but would not be over 70 or 80 miles off the Jersey coast. To the eastward of New York get them a little nearer in.

When the fish leave in the fall they follow the coast about the same as they do in the spring. They take a north and south course until they get clear of the coast. See them in large bodies in the fall when they get ready to leave. Does not think they move much faster in the fall unless they are a little late or it comes on heavy weather. They travel about 12 to 15 miles in 24 hours. Has not followed them very far south in the fall, at Block Island, 20 to 30 miles offshore from No Man's Land, when they were winding up in the fall; that is as far south as he has been.

The fish are as fat about the middle of September as they will be that year. When they get ready to go south they lose flesh a

little.

Manan, or thereabouts. Not many fish on this

No mackerel off here now.

most that size.

Has never caught mackerel in the winter.

After June they find the best fishing

Has heard of their being taken out of other

from Cape Cod to Prior Island; sometimes off-

fish on Georges in midwinter; small mackerel,

shore; and sometimes inshore. May come into

about 9 or 10 inches. Never taken there in

the South Channel and play offshore 30 or 50

great numbers; just scattering fish. Fish

miles perhaps from land, and may come on the

have been caught in the winter down around

coast and go right into the bays, just as it

Grand Manan in some of the weirs not many years

ago. Of late years more apt to go into

ago; cannot say what month, but after the

the rivers and bays; all along the coast of

vessels have knocked off.

Maine from Portland to Eastport. Have known

Have seen years that we thought certain

fish to go up the rivers into the "guns" as

bodies of fish worked up the Cape Shore and

we call it. Have caught them up the rivers,

struck here, but did not know for certain.

in Johns Bay, and up around Georges River.

The early run of fish are large; of late

Rockland Bay, and up Penobscot and around

years all we get on the Cape Shore are large.

Penobscot, and up in the Machias River. Casco

Never catch any small ones. No difference in

Bay is a grand place for them. Apt to find

the size between fish caught here and those

them inshore more than offshore of late years;

caught at Cape Shore. If they find a large

especially in the summer months. Thinks one

number of small mackerel south in the spring

reason why they go inshore and up the bays and

it does not follow that they will find them

rivers is to get better feed, sometimes to get

small on the Cape Shore. Find them at Grand

Manan, or thereabouts. Not many fish on this coast that size.

After June they find the best fishing from Cape Cod to Briar Island; sometimes offshore; and sometimes inshore. May come into the South Channel and play offshore 30 or 50 miles perhaps from land, and may come on the coast and go right into the bays, just as it happens. Of late years more apt to go into the rivers and bays; all along the coast of Maine from Portland to Eastport. Have known fish to go up the rivers into the "gunks" as we call it. Have caught them up the rivers, in Johns Bay, and up around Georges River, Rockland Bay, and up Penobscot and around Kennebec, and up in the Machias River. Casco Bay is a great place for them. Apt to find them inshore more than offshore of late years, especially in the summer months. Thinks one reason why they go inshore and up the bays and rivers is to get better feed, sometimes to get

away from blue fish, generally something forces them in; scares them.

The schools are affected by other fish preying upon them. Has known blue fish, bonitoes or albacore to cause periods of scarcity in mackerel. Often times will drive them so that they do not know where to find them.

Find different sizes of mackerel in the same schools quite often. They range all sizes; sometimes down to 8 or 9 inch mackerel, up to the very biggest ones. Would not expect to find any school with the fish all the same size. This year the mackerel appeared to be mostly large, and have caught about the same size. Very few small ones seen this year. Saw them all along shore, especially around Barnstable Bay and Plymouth. Caught large schools. These little fish, he thinks, were born this year, for the reason that they are so tender and transparent; skin is so tender. Has occasionally found large mackerel in schools

They generally come just before what we call the main body of fish. That would be about the 15th to 20th of May. Does not think there is much change in the size of the fish. The size varies. This year about all large ones. A few years ago, for about half a dozen years together, we got all small ones, so that the price of small ones was way down to nothing, and the price of large ones was very high. Could not seem to get any big mackerel for a number of years. Since that these small ones have disappeared, and what we get now are all large. As large this year as he ever saw them. Does not know whether the close season had anything to do with it or not.

Could not say how early mackerel begin to spawn, but thinks along in June is about the best spawning month, but they spawn as late as July. Has seen spawn in them as late as that. Might have been mackerel that did not spawn. This was on our coast. Thinks they spawn all

along the coast; from backside of Block Island close inshore; into shallow water. Do not know what depth, but quite shallow water. Do not think they can go down in deep water and spawn. Has not observed whether they spawn during the day or night. The first ones we get in the spring are hardly ready to spawn. If we catch them when ready to spawn it will spurt out of them. Do not find any fish that have spawned in the spring.

Mackerel are not as active about the spawning time. Oftentimes we will set a seine for these fish that are going to spawn about the 5th or 8th of June, and if we get around them and get our seine together in shape at all they will hardly ever get away from us. Thinks they feel kind of logy and sick when it comes time for them to spawn and cannot go down in deep water. Thinks that is why they do not dive the seine.

They are less ready to take the hook at that time; do not bite much. More apt to be lying on the bottom. Sometimes we will lose them. They are liable to disappear most any time. They appear to sink about the spawning season, and do not show themselves for two or three weeks. Oftentimes have a school come up on top of the water to feed. If we are there at that time can catch them quite easy. After that, the first thing we know they are gone and do not see them for a long time. Then the spawn is out of them and they are poor. No fat on them until the spawn is out. After that they fat up very quickly.

Does not think they are as abundant as they were 20 years ago, take them as a whole, both large and small ones. This year there has been a fair quantity of large mackerel, about all that size. No mixed schools to amount to anything this year. We consider that kind pretty shy, hardly ever get a big catch of them.

The cause of the decrease is pretty hard to tell. Seines may do part of it, and may not, and may be owing to nature. Spawn may not have come to maturity for some reason. The quantity of fish is not as large as it used to be in 1846. Used a great many more fresh then. About 1875, for a few years, more caught than in 1846.

When they see small mackerel in large quantities one year, generally look for them to come back the next year with another year's growth on them. But some years they would not seem to be the same fish, would not be as many of them, and would not seem to correspond in size. Does not always follow that a large body of small fish is followed by a large body of large fish the next year.

Is not certain whether the close season did much good or not. Does not think it did a great deal of harm. But does not think it protected the spawning fish much, because by

the first of June not a great many of them have spawned. Considers the object of the law was to protect the spawning fish; to let them get the spawn out of them before being caught. Thinks they should put it later than the first of June, because many spawn after that time.

The southern voyage has not been a profitable one as a usual thing. Some vessels will do well, but on an average, not a paying business, even from the earliest times. If they got a good catch, would get them all in a lump, and would make a glut on the market, so that they would not get much for the fish.

Cannot tell whether the purse seine has any effect on the mackerel or not. Is inclined to think it scares them rather more than the old method. The old method was an inducement for them to come on the coast; gave them something to eat. Purse seine is no inducement. Does not think it much use to legislate on it. If the fishery scares them, we have got to go

out of the business of course. If it does not, they will come back on their old grounds. Would not personally advocate any regulations of the fishery at the present time. Let it regulate itself. Has not been in the Gulf this year. Was not down the Nova Scotia coast this year. Used to do a great deal of hook and line fishing in the Gulf. Does not know that it would be a very serious deprivation to stop purse seine fishing. Would make it pretty hard for some for a spell.

Would not be a very serious matter to mackerel fishermen to give up fishing in the North Bay with seines. Might go, possibly, and do nearly as well with the hook.

If the purse seine was given up on our coast, does not believe they could catch them as they used to before they went seining, but might bite just the same if they went the same way. The way it used to be, would sometimes fall in with a large body of fish schooling on

worms, and we would heave bait into them, but they would not look at a hook the first day, but we kept at it, and they would stop schooling; then as a general thing would go to catching them. Sometimes get them as fast as we could haul them in. Do not know why we could not do it now. Used to be a great deal of that fishing done in the Gulf. Has not been in the Gulf lately fishing; not for 4 or 5 years. Do not many go there now.

Thinks the purse seine has a tendency to break up the schools. Heaving seines at a body of fish sometimes breaks them up in a short time. They change their position and go out of our reach. Pretty hard to account for the small catch of mackerel on this coast during the last five years. Whether it is the seines that have caught them up, or whether the seines sheered them off in some other direction or whether it is the lack of fish coming to maturity. It may be from natural causes, or

it may be they keep out of sight caused by the seines scaring them.

Never followed mackerel further than Cape North. Has been in the Gulf of St. Lawrence in the spring. In the summer season has been to Anticosti. Did not go south this year, but his vessel went with another man. Caught about 200 barrels in one trip, about the 10th of May. Probably got about 400 barrels while south. Did the best of any vessel down there. Got 200 barrels at one haul.

Mackerel feed upon different things, judging by what we find in them. Consider as the natural food these little bits of things, about the same as mustard seed. Will see the water sparkle with them: some red, others gray: all colors. What we call seed. That is the natural food for mackerel. They seem to be contented when feeding on that, and get fat then. Find it all over the coast some years very plentifully. Some years not much of it.

Sometimes see a great many mackerel and not much feed; and sometimes a large amount of feed and not many fish. Sometimes catch mackerel full of this feed, and yet do not see the feed. It may be under the surface so that we do not see it. There is a kind of food which burns the mackerel. It is what we call the cayenne Different from the red seed. It is soft so that it will run, and is very red. When we find that in them it will rot them very quickly They will not keep. Seems to burn their bellies right out. It does not affect the quality of the mackerel at all. They are just as good quality, if we can take care of them in time, but they will spoil quickly, especially in warm weather, and if they are very fat. This "gunk" is pretty well distributed along the coast, in the summer months especially. Does not know that he ever saw any early in the spring. Find other things in the stomachs of mackerel; sometimes little fish; sometimes sea

fleas. This fall in Boston Bay, the surface of the water was solid with these little sand fleas, about $\frac{3}{4}$ of an inch long.

Caught most of my fish this year in Boston Bay, this fall. Not very good fishing on the coast in the summer; very small catch. The fish showed all summer by spells, say for 10 days or so, but this fall they schooled pretty well off Boston Bay along in October. These fish, of course, must have been to the eastward during the summer months, probably around the coast of Maine somewhere. When they showed up this fall in Boston Bay they were also schooling down at Monhegan and off the coast of Portland.

No particular parts of the coast that they seem to avoid. May expect to find them anywhere, wherever there is sufficient water for them to play in.

The largest number of vessels he ever saw working together was about 300; in the vicinity

of Boston Bay, along about September or October. Has not fished off Block Island this year.

If mackerel get no better than they have been of late years, hardly think they will make a success of the steam seine boat. The vessels having the steam seine boat have done no better this year than other vessels. There is a saving of labor on the steam seine boats. Do not have to row any. Do not think they can purse the seine any quicker than we can. Can go around the fish quicker, however. It is much costlier, and heavy to tow, and the risk of losing the boat is greater. Cannot take it on board. The patent purser has not been used very extensively yet. Has not put it in his boat yet. Understands it works well. A thousand mesh full length seine will cost about \$1,000. General length about 200 to 225 fathoms. Will last 3 or 4 years if well taken care of. Preserve them with coal tar. Salt

it when we stow it away; that is, if there is any "gury" in it. Keep them wet all the time, until winter, when we dry them and stow them away.

The cost of the outfit for seining is much greater than for hand line.

Ship my men on shares. The cook gets extra pay. Have 16 or 17 men for two seines. Have both seines at the same time. Vessels have been carrying two seines quite a number of years, perhaps 15 years. Nearly all vessels carry two seines now. All use pockets for preserving the fish. Pockets cost about \$100. Dimensions of pocket about 1000 meshes deep; made of very heavy twine.

Sometimes catch other fish with the mackerel; sometimes get herring; sometimes get what we call kyacks. They are nearly like the herring, about like an alewife.

Has been much destruction of mackerel with the seine in past years. Have lost a good

many fish in years gone by from having to heave them overboard. Were not prepared to salt them then.

Sometimes used to get menhaden with mackerel, but not many now. Hardly ever catch blue fish with mackerel. Have seen blue fish as far east as Mount Desert Rock. Have taken shad with mackerel quite often. Sometimes they are mixed, half shad and half mackerel. Mackerel will not attack a full grown shad. Full grown shad is larger than the mackerel. Mackerel will eat the scales off the kyacks.

Get some large hauls of shad sometimes separate from mackerel. Sometimes it pays very well to catch them. Great place for them in the vicinity of Kennebec. Catch them along in August. They are not heading in any direction;; seem to be playing around and feeding. Have no spawn in them then. They are fat at that time. Hardly ever catch them in

the spring in the seines. Sometimes catch them on the Cape Shore, just a few. No spawn in them then. That is along in June, and the spawn is out of them.

Never took salmon in the seines. Caught a little one once, that is all. Could not remember just where it was.

Does not know whether the shore fishermen are interfered with by the seines or not. They used to growl considerably at the seines, but not much now. The netters are not interfered with hardly any by the seines, for the reason that the fish they catch in their nets we cannot catch in the seines. Hardly ever get any fish from schools. Our fishing is with scattering fish.

We do a good deal of our seining at night. Did not use to fish nights. Probably 15 years ago was the first we undertook night fishing. Now whenever the water fires we are looking for

fish. They are less shy at night. Can catch them very easily as a general thing. Have all kinds of methods of fishing at night. Sometimes water does not fire much and the skipper goes on the masthead. Can see them better there. Cannot do anything on moonlight nights.

CAPT. ELIPHALET WHARF, GLOUCESTER, MASS.

Interviewed by William Wakeham and Hugh M.
Smith, November 16, 1893.

Aged 63. Has had 40 years' experience in
mackerel fishing. His first experience was in
1851. Master of schooner Notice, of Gloucester.

Has been south 8 or 10 years seining. And
was hooking when he was a boy. When he was a
boy found fish off Cape May and Sandy Hook.
That was the southern limit. Was about 11
years old then. Used to heave bait and toll
them up; were not in schools then. Has used
the seine about 6 years. This last 4 years
been hooking. Has not been south in the last
4 years. Been hooking in the North Bay.
Before that was seining on this shore. Got
down to the North Bay in July. Do not intend
to be there before the 1st of July. In the

Bay after the 4th of July. Made for East Point, and then Magdalen Islands. Go down the Bay (Gulf of St. Lawrence) because think we can get better hooking than on this shore. Do not make a practice of hooking on this shore because think they do better at other places. Thinks seining interferes with the hooking. Remains about 3 1/2 months in the Bay. 10 or 15 years ago were no hookers around. Averaged about 20 barrels a year. Went hooking before the use of the purse seines. Could average about 500 to 600 barrels. Has been in the Bay 15 or 16 years. Could fill the vessel. All the rest of the vessels used to get them about that time. Much larger fleet fishing in the Bay then than now, about 200 sails. Has been as far north as Gaspe. Never been up in the St. Lawrence River, nor on the North coast. He was the first that started hooking ^{in the Bay,} (A). Got 220 barrels in 1889. Cod fishing in July has been his business, and then go for mackerel

Gave up seining 4 years ago because he had a vessel with another man, and he sold out, and after selling his vessel, this vessel he has now happened to suit him, so he concluded to fit her for the Bay.

Go down to the Bay about the beginning of July, and generally stay until the 1st of November. Last year left the 6th. This year came away the 15th of October. There were mackerel there when he left. In the hooking business of late years, after October comes in do not have many fishing days, and the reason we do not stay is, we only get about one day a week, and the men get dissatisfied. If we had a seine would stay longer.

Mackerel not as abundant in the Bay as they were in years gone by. Could heave vessel to in any part of the Bay, and toll up fish and catch them, almost as many as you could take care of. More fish this year than he has seen for 3 years. Are getting rather

scarce, however. For three weeks on Cape Breton, have seen fish as far as the eye could see. One vessel caught 270 barrels in 6 days. Went to the Magdalen Islands about the 10th of July and staid until the 1st of Sept. Got most fish off Grosele(?) Island. Did not go over by Miscou. Was up as far as North Cape last year and this year, but did not do anything. Last 4 years what mackerel he has caught have been caught from East Point to Magdalen Islands.

Thinks mackerel spawn in the Bay about June 25 or along the 1st of July. Spawn was all out of the fish he got this year. Most of them spawn the first of July. Was there about the 15th and did not see any spawn.

The mackerel he caught the 15th of July at Magdalen Islands were the fattest fish. The first mackerel were better than the last ones, but cannot tell much about that as they are different schools of fish. The fish on

the north side of the Magdalen's are larger than what we get off East Cape. They are the largest size fish there are. At the Magdalen's got mixed mackerel this year; a good deal smaller than in years past. The first two years he went there got 16 and 17 inch mackerel. Now they average about 13 $\frac{1}{2}$ to 14 inches.

There were 25 or 30 sail there this year, all seiners. Shallow grounds mostly, some places they can seine and some they cannot.

The shore fishermen did well this year. The average boat got from 35 to 40 barrels to a boat of three men. Did the best in July, and the most fish then.

They come out of the Bay down through the Gut. Never saw any mackerel enter the Gulf through the Gut. Thinks of late years most of the fish go around Cape North. See a good many fish when they go down, but in the fall do not see them come back; suppose one account of the weather. Did not see many fish on his

way home. Was rather too early for them. Thinks the fish that they get at the Magdalen's are the same ones that pass along here in the spring. When they leave the Bay in the fall, does not think they come this way now, but they used to. Not many go inside Cape Sable now. Go out the other way, and come that way too.

Fish on this shore never trouble the Bay any, of late years. Has been on the southeast part of Georges laying at anchor when fish were going down by. All those fish strike Cape Sable, and when they go home, go the same way.

Does not know what the mackerel feed on in the bays. Does not think they feed on anything of late years. Can see this feed in the water, these small fish they are chasing. Have not seen any cayenne this last 4 years, but used to.

It takes longer to raise fish now than in the early days. Will lay now probably two or

three hours without raising any fish, and then again will raise them in half an hour; not a very big body. They do not appear to be large bodies of fish at all. Has seen bigger bodies this year, however; looked rather like old times. They came up on top of the water this year. Several times thinks they had 50 to 100 barrels under their bottom, but had no seine to catch them. At Magdalen's hardly ever see any fish. They do not show.

When vessels are fishing with hook and line they keep the fish together. The vessels spread apart more and find the fish. The first year he went in the Bay there was nobody down there but himself, except a cod fishing vessel. I found the fish and did well; other vessels would have done the same had they been there. Caught them on the same ground that he caught them this year.

Mackerel are not much preyed upon by other fish. Do not see blue fish in the Bay.

What disturbs the fish in the Bay is the dog fish. Never saw dog fish before until last year. They are in great numbers at Magdalen's. They are something new. Mackerel do not like squid very well, although there are plenty of them.

Thinks they get bigger fish with the seines than with the hook and line. When you have a seine and get around a school of fish you get them all as a general thing. In laying to for fish, you cull them out; the small fish come to the surface of the water and the big ones stay under.

Thinks the seines are destructive to mackerel. If you have a hundred schools of fish and a hundred seines there, they are going to catch every one of them. Since the seine has been in general use the amount of mackerel taken is not as large as it used to be with hook and line. There were more fish then than now. More fish between Cape Cod and Cape

Ann. Have not seen any fish for 12 years that I call fish. Attributes the decrease of mackerel to the seines.

When the mackerel first came in at the south we used to catch them on the hook close in. Mackerel had a regular route to go. They used to come up off Block Island around inshore all the way along. Now they strike way off. Do not come up as close inshore as they used to on account of the seines. Mackerel would have been scarcer than they are now if the close season had not been put on.

Thinks the same mackerel which they find on the southern ground come up on the New England coast later in the season.

He would favor the close time law, Would do away with the purse seines altogether, that is how he would regulate them. Thinks a good many fishermen are of that opinion. Does not think it would cripple the industry. Thinks they would do better. They would take

the hooks as they used to do. Might not catch so many fish, but would make more money.

Could catch enough fish with the hooks to supply the market, at any rate.

Cannot catch near the amount of fish on Georges Bank that they used to. Large quantities of young mackerel have been destroyed by the seines. More destroyed than are ever brought into port; by catching small fish, getting them meshed and filling the seine, and then drawing the seine and throwing them away. Have had 500 barrels in the seine, and picked out 20 barrels, and let the rest go. They were all dead. Other vessels catch 4 times as many as I catch:---murder barrels where I murder buckets.

Weirs do a good deal of that too. Of late years they have not been mashed so much, as they have been big; that is, for about the last 12 years.

If they catch mackerel before they spawn

it will make them much scarcer. June mackerel are all full of spawn, and are poor. The best mackerel we get are in August, then they are fat. Thinks the mackerel along this shore spawn earlier than they do in the Bay.

Thinks a regulation prohibiting purse seining in the Bay would be a good thing. That would not cripple the industry to any great extent, and would encourage the hook and lines in the Bay, and everywhere, for that matter.

Only 4 hook and liners from Gloucester this year. Does not know whether there were any along this shore or not. Not much hooking done along here. About every boat has a seine. Boats of any size have a little seine in the dory.

Find sick mackerel in the schools. Find mackerel just as poor in September as in the spring. Supposes it is the result of some disease, that they do not feel like eating.

Very seldom find other fish mixed with mackerel. But catch dog fish on this shore. Never caught any blue fish with mackerel, but has caught whole schools of blue fish. Lots of blue fish caught off Block Island; also shad and butter fish. All kinds of fish there when he is catching mackerel.

Would favor doing away with the purse seine. Always believed in hooking, but lots of captains would not agree to that. They prefer to go seining. It is a quick way to catch fish. Can get 500 barrels of fish in 7 to 10 minutes. These purse seines clean the ocean right out. Everything they see in the shape of mackerel they capture. If there are 100 schools of mackerel and 100 seines, they will catch them all up.

There are lots of little mackerel growing up. Saw a good many this year. They were this year's mackerel. They say mackerel only grow an inch a year after the first year.

Has seen fish in the Bay and at Magdalen's one year, and the next year would not see them.

Did not know where they went.

Mackerel spawn right where you catch them. Off Magdalen's there is a place called the Green Bank where he thinks they go to spawn, and then come back to the shore again.

They take the hook freely before they spawn. Catch them as soon as they get in the Bay, the first of June. Does not think they bite as freely about the spawning time, but they always used to catch them then. Last yearshe went seining, they said when we got off No Man's Land we would not catch any mackerel because they were getting ready to spawn, but we did catch some. Has never taken mackerel with the spawn running from them that he knows of. Has caught them when the spawn was pretty ripe, but not ripe enough to be running. The most he has seen this last 4 years, the spawn was all out of them. Used to find them down

south near New York with spawn that was hard.

There has been vessels some 30 years ago that have caught 1700 barrels a year. Had some bad years when vessels would not average 100 barrels a year. He never went in the Bay but what he got a full fare.

Does not intend to follow the fishing business much longer, but would like to see the seining stopped. If you put 50 sails around the Magdalen's with seines, they would clear them entirely out; boats would not get 20 barrels of fish, because it is a small place, about 4 or 5 acres, and they would catch them all up, and drive away what they did not catch. There would be a good many complaints made at the Magdalen's if the seiners were to stay there, but it is a pretty hard place to seine and they might lose a good many vessels by running on the rocks. There are many bad places in the Bay besides the Magdalen's where it is hard to go into for a vessel drawing

about 14 feet of water. Tonnage of his vessel 63.

Would be lots of money made at hooking if there were no seines. Thinks mackerel are more shy than they used to be. In years past used to jig sometimes all night on the west part of Georges. Got 100 wash barrels in a night. This happened when he was young. Seining is easier than jigging, but it is a more expensive outfit.

He got 180 barrels this year. That number of barrels would not pay a seiner. They have a large crew, -15 to 20 men, and the cost of seines and seine boats. All it costs us is our boat, which costs in the neighborhood of \$150. Getting two seines ready for sea would cost that much. A vessel under ordinary circumstances would use from 50 to 60 barrels of bait during 3 months fishing. We carry about 60 barrels and generally use it all. We use what we call pogies. It costs us \$1.50

a barrel and put it up ourselves, but if we buy it already put up it costs us about \$4.00. Not as easy to get men to go hooking as it is seining. My crew are made up of old men mostly, from 40 to 65 years and some 70 years old. We find men about 50 are the best men on the hook, because young men have not got on to it. My crew go on shares, every man for himself---gets half his fish. All the hookers have that arrangement.

The other vessels with him this summer got about the same as he did. Their names were, the M. H. Perkins, Christie Campbell and David Sherman. They carried about 15 men.

Clams, we think, are better than menhaden for bait. Take clams generally for change of bait. Mix them in with the pogies, about 10 barrels of clams with 50 barrels of pogies.

Does not think there was a larger mackerel fleet seining this year than usual. Used to be a great many hookers at one time. This

harbor has been packed full so that you could walk from one vessel to another right across the neck. Has seen 500 or 600 sail of vessels when he first went seining.

Have chased the mackerel to Cape Cod and Cape Ann. That is the last we get. That was the close of the season. They were very large fish too, some years. One year they were small.

This year had a good show of fish on our shore; all taken with seines. Last year did not do as well. Did very well at Block Island for the reason that the blue fish did not trouble them.

Did not hear how the lobster fishing was; guess they did very well at the Magdalen's. One man said he, with two boys, made \$1500. with lobsters and mackerel. Get the most mackerel about South Beach at Magdalen's.

CAPT. BENJAMIN F. PAYSON, GLOUCESTER, MASS. INTER-
VIEWED BY WILLIAM WAKEHAM AND HUGH M. SMITH,
NOVEMBER 16, 1893.

Has had forty years' experience as a fisherman. Has fished for mackerel the last thirty-five years, with the exception of four or five years in the army during the War. Captain of Sch. S. F. Maker, of Gloucester.

Used to engage in the southern fishing before the close season. Has been in the Gulf of St. Lawrence. Used a purse seine.

In the southern fishery has found the fish off the coast in the latitude of Cape Henry. The fish are then heading to the north. Find them in schools. Has followed the schools from Cape Henry to the Gulf of St. Lawrence. That is, not seeing them all the time, but following a body of mackerel.

The fish that are caught in the spring are very poor. No fat fish among them. Fish do not get fat until later in the season.

Has followed mackerel as far north as navigation goes in the Gulf of St. Lawrence; up as

far as English Bay. One vessel went down to the north end of Anticosti and run into icebergs. Was up to the Gulf three years after them, but did not make much of a success of it.

Has followed a school of mackerel ten or fifteen miles on top of the water without losing sight of it. Have followed a body of mackerel for days sometimes, keeping with them all the time.

The fish they get south are not the same fish that they get in the Gulf of St. Lawrence.

The fish we catch south in the spring, as a general rule, are the fish that stop on this shore. Sometimes they will go into the Bay, but if they do, it will be a good deal later. This body of mackerel that we find on the southern shore, if they go in the Bay, it will be late in June or the first of July.

The mackerel that we catch on the Nova Scotia shore in the spring come from off shore, outside of Georges. They follow them from Georges Bank to the Nova Scotia shore. They strike in way off shore there. They are then heading to the north.

Have never seen schools off shore any further than out of sight of land. Have seen them

on Le Have Bank in the spring, on the southwest part of Western Bank.

Was catching codfish in April of this year, and they never saw the like of mackerel. One vessel captain was telling me they never saw the like of fish, but when they got out to them, it was all those large bill fish. Some thought they were mackerel, but they were not. Bill fish are a long, slim fish, with a long bill on them.

Mackerel strike on all parts of the Nova Scotia coast. The first mackerel used to strike on the Nova Scotia coast at Yarmouth, and between Yarmouth and Cape Sable. They strike about the 24th or 25th of May. Then we used to go down after them and would go to the eastward. We thought they would strike up that way, and since then we have found out that there is a day's difference between that and when they strike Scatteri.

The mackerel here come in from off shore. Get them at the Magdalen Islands, pretty near the end of May. There is very little difference between the Magdalens and Scatteri.

The heft of the spring run come and go around North Cape. The fish are going down as a

general thing when they go through Canso. I think they make a mistake. I think they intend to go around North Cape; but fish going down the Nova Scotia coast go up into the bays when they go back in the fall. Have seen mackerel go up to Plymouth(?) and then turn and go down around Provincetown, and then start and go back up into that bay, but they did not calculate to go there; and that is the way at Canso. They make a mistake.

The fish we get off here are supposed to be a better mackerel, because they are a later mackerel. They are the rear schools, and are fatter than the head schools. Have seen about the same size mackerel in the Bay as I have off here.

Mackerel generally leave this coast about the first of November. Does not know where they go. Have never followed them in the fall any further south than Cape Cod. Then they were heading to the south and going quite fast. In the fall they are generally in schools; at least when the weather is fine. They follow the Cape shore as far as Cape Sable, and then they go to the southward. Have seen on the north edge of Georges going to the south late in the fall. It is reported that mackerel are on Georges in the winter some years. They

leave the coast by degrees in the fall.

Does not think mackerel swim over four or five miles an hour. They generally go when schooling about three to five miles an hour.

Find the best fishing grounds different years in different places. All the way from Mount Desert is the general schooling ground. Most of the fish that have been caught by the Gloucester seining fleet have been caught between Cape Cod and Grand Manan.

Have seen mackerel as far off shore as 40 or 50 miles. About ten years ago we fishes on Cashe Ledge.

The movements of the mackerel are influenced quite largely by the other fish preying upon them. Whales and porpoises drive mackerel. Dog fish prey on them all the time, but do not drive them. They go right around with them. Porpoises are the worst fish; also blue fish, bonitos and albacores. Have known mackerel to be driven off shore by these fish last year; and the last two years before this the bonitos and bluefish drove them off shore; so far that they did not see any for the last

month they went fishing.

Find different sizes of mackerel in the same schools. Sometimes find very large and very small fish in the same schools. But, as a general thing, about the same size.

Does not think there is any change in the relative size of mackerel as compared with 20 years ago. Have to have tinkers before we have mackerel. They grow up in about three years and get to be pretty good mackerel. Have not had big tinkers here for a good many years.

Mackerel spawn from the Capes of Delaware to the Gulf of St. Lawrence. The spawning season on different parts of the coast is from the middle of May to the first of August. The farther you go, the later they spawn as a general thing. Sometimes catch mackerel the last of May that have all spawned, and then have caught them the last of June. But think the heft of the mackerel spawn from the 1st to the 15th of June. The fish we take in the southern spring fishery have plenty of spawn in them. Some of them have spawned in the last part of the fishing, late in May, but a very small proportion have spawned by that time.

The fish generally go down about the time they are ready to spawn and stay down. The spawning process generally lasts two or three weeks.

This dull spell occurs on our coast in June, but sometimes get very good fishing then. Appear to lose the fish at that time. They sink along all parts of the coast, no matter where they are, and when they rise, they rise all at once.

When they first come up they are poor. They grow fat gradually until the last of August. Do not get any fatter after that.

Very seldom see sickly or logy mackerel, unless they get hurt. Never found dead mackerel at sea. They sink if they die.

Those Cape Shore mackerel are easier to catch just before they spawn. After they spawn they are shy and hard to catch.

Thinks mackerel have decreased within the past twenty years, although we always had good years and hard years fishing. In 1851 had the biggest catch that we ever had, and had not the facilities to catch them that we have now, although there were more vessels out then than now.

Would attribute most of the decrease to body of larger mackerel. Have seen years when we

other fish preying upon them. Does not think what the fishermen catch decreases them very much, but of course it does some, but nothing compared to the fish that prey upon them. The reason of the scarcity of mackerel is that the young have not come to maturity. It is due to natural causes.

Caught but very few in the old days before the spawning season. We never went mackerel fishing in the early years until the spawning season came on. Perhaps a dozen vessels would go out as far as New York, and they would not go until the first of May. The regular hook and line fishing began on the coast after the 4th of July. Very little was done before that. Most of our fleet here used to go to Georges.

Used to go south in the days of hook and line fishing. We used to get full fares sometimes. They were salted then. The best fishing grounds in those days was North Bay (Gulf of St. Lawrence); and some years on the shore, ^(?) but the Bay used to be the best place.

Have known years when there was a very large body of small mackerel on the coast, and that body of fish was followed the next year by a large body of larger mackerel. Have seen years when we

had those big schools of tinkers; only worth \$4.00 a barrel; could catch abundance of them the whole season; and the next season those small fish come back a size larger, and the next year a size larger still, when they would be getting quite big.

Thinks the purse seine helps to decrease the mackerel, in a small way. Does not think it is unnecessarily destructive in any way. Would not put any restrictions on the purse seine fishing. That time is passed. If they had put it on when they commenced it would have been all right, but it is too late now to put any restrictions on it.

Had no objections to the close time law; thought it was a good thing. Vessels never made a success going south. If they got plenty of fish, had to give them away almost.

But did not like the close season the way they got it up. It did not satisfy us or anybody else. They said we should not catch the fish until the 2nd of June. These fish would strike in May on the Nova Scotia coast, and there traps would be all set from Elizabeth⁽²⁾ to Yarmouth; and they would send them to Boston market; and the Nova Scotia boats would go down there and fish and send them into our markets. We would go down there the

last week in May, the fish would be schooling, and their vessels catching all the way from 125 to 150 barrels apiece--they catching the fish and we looking at them. If they would put that law so we could compete with Nova Scotia it would be all right for us, but when they put it a week too late it does not benefit us.

The object of the law was to increase the mackerel; that is, by not catching them until they had spawned, but the bulk of the mackerel never spawn until after the close season is over. If no one could catch mackerel until after the 4th of July you would increase them.

Would not be any use in legislation at all. If they have any legislation, make it universal, and make the time later than it is now.

Thinks the purse seine, to say the least, does not do the mackerel any good. It tends to drive them away. A body of mackerel might be started from one place to another, but hardly think it would drive them off the coast. Never knew of such an instance. Have seen perhaps 30 or 40 seines working at one time. Have seen over a hundred vessels laying under their mainsails, with the pockets alongside dressing out of them, in a small space.

The fishermen have different opinions as to the benefit of the close time on the mackerel; some think it is a good thing, and other's think not. Thinks there would be strong objections to a renewal of the close time.

Could not catch as many with hook and line if the purse seine was given up. Thinks that day is over. It would take longer ~~time~~ than I'll live to get it back again. Think mackerel have changed. There are so many fish after them and so much feed in the water. More feed in the water than there used to be. The water this year appeared to be full of feed everywhere we went, and they will not bite a hook when that is around.

Very few vessels go into the North Bay now from this coast. Last year four or five hookers down there, and year before last three seiners, I was one of them. This year have been a good many seiners down there. Probably 75 vessels would go from this port and down east for the spring fishery. Most of them from here.

He went south this year. Did not catch any fish. Saw some fish, but they were wild. Only two or three vessels got any, and they got only a few.

Thinks it would be a hardship if fishermen were prevented from fishing with seines in the North Bay. Vessels with hook and line have not done as well as seiners this year. One vessel, the Noumbega, is bound home with 450 barrels, taken with the purse seine in the North Bay. We have no privileges there now. Cannot buy anything there in the shape of provisions, etc. Would not buy the license to go into the North Bay. Would steal first. They used to allow us to fish in the Magdalens, but now they do not. Their vessels will hook inshore just as they please, but we cannot do so. Would not get any privileges there even if the duty was taken off by the United States.

There has been a large body of mackerel in the Bay this summer, but we could not catch them, they were so wild. They were out on Bradley and all up and down the Island, Cape George and Margarie.

Very few mackerel go through the Gut of Canso; most of them go the other way. Those that do go through I think go by mistake. Has known fish to go through there, the last of May